WHAT IS CLAIMED IS:

1. An optical semiconductor device comprising:

an optical semiconductor element; and

a circuit connected to the optical semiconductor element, having a series rectifying circuit including a plurality of zener diodes connected in series, and having a rectifying element whose anode is connected to an anode of the series rectifying circuit.

2. The optical semiconductor device according to claim 1, wherein the circuit further includes a voltage supply which supplies a higher voltage to a cathode of the series rectifying circuit than to a cathode of the rectifying element.

3. The optical semiconductor device according to claim 1, wherein the zener diodes have parasitic components which generates a current upon irradiation of a light thereto.

4. The optical semiconductor device according to claim 1, wherein the rectifying element is a NPN transistor whose emitter and base are short-circuited.

5. The optical semiconductor device according to claim 1, wherein the rectifying element is a PNP transistor whose collector and base are short-circuited.

6. The optical semiconductor device according to claim 1, wherein the rectifying element is a NPN transistor whose collector and base are short-circuited.

7. The optical semiconductor device according to claim 1, wherein the optical semiconductor element is protected from a voltage exceeding a predetermined value by a breakdown of the zener diodes.

8. The optical semiconductor device according to claim 1, wherein a voltage applied to the optical semiconductor element is adjusted by a breakdown of the zener diodes when a voltage exceeding a predetermined value is applied.

9. The optical semiconductor device according to claim 1, wherein the optical semiconductor element and the circuit are monolithically provided on a same semiconductor substrate.

10. The optical semiconductor device according to claim 1, wherein the optical semiconductor element and the circuit are accommodated in a same package.

11. The optical semiconductor device according to claim 1, wherein the optical semiconductor element is a light emitting element.

12. The optical semiconductor device according to claim 1, wherein the optical semiconductor element is a light receiving element.

13. An optical semiconductor device comprising:

an optical semiconductor element; and

a circuit connected to the optical semiconductor element, having a series rectifying circuit including a plurality of first rectifying elements connected in series, and having a second rectifying element whose anode is connected to an anode of the series rectifying circuit.

14. The optical semiconductor device according to claim 13, wherein the circuit further includes a voltage supply which supplies a higher voltage to a cathode of the series rectifying circuit than to a cathode of the second rectifying element.

15. The optical semiconductor device according to claim 13, wherein the first rectifying elements have parasitic components which generates a current upon irradiation of a light thereto.

16. The optical semiconductor device according to claim 13, wherein the optical semiconductor element and the circuit are monolithically provided on a same semiconductor substrate.

17. The optical semiconductor device according to claim 13, wherein the optical semiconductor element and the circuit are accommodated in a same package.

18. The optical semiconductor device according to claim 13, wherein the optical semiconductor element is a light emitting element.

19. The optical semiconductor device according to claim 13, wherein the optical semiconductor element is a light receiving element.

20. The optical semiconductor device according to claim 13, wherein the series rectifying circuit limits a voltage to be supplied to the optical semiconductor element to a predetermined value.